Interstitial Cystitis

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• **Interstitial cystitis, a disease of unknown origin which occurs predominantly in women, causes great pain and considerable disability. In most cases, the long interval between onset of symptoms and establishment of the diagnosis is due to a lack of familiarity with the disease.**

Although there is no "cure," several forms of therapy may lead to improvement. In a series of 27 patients, 15 received benefit from distention of the bladder through the use of a solution of monoxychlorosene.

AN UNCOMMON urologic condition, interstitial cystitis evokes considerable medical interest because of the severity of the symptoms, the characteristically long interval between onset of symptoms and the diagnosis, and the knowledge that the cause is still unknown. Evaluation of various forms of therapy is exceedingly difficult; nevertheless, improvement in a majority of patients can be obtained by several forms of therapy.

The symptom complex which most commonly differentiates interstitial cystitis from other forms of cystitis is bladder pain that increases as the organ distends, finally reaching excruciating intensity and then abating promptly upon urination. The frequency of micturition and the suprapubic or urethral pain necessitate pronounced curtailment of activities. It is doubtful whether any bladder lesion, with the exceptions of carcinoma and tuberculosis, causes more persistent, more intractable or more severe symptoms than interstitial cystitis.

Although the symptoms may suggest a bacterial infection, the urine is usually "negative" microscopically.

Excretory urography commonly reveals no abnormality of the kidneys or ureters. The bladder, however, may appear contracted and distorted.

If cystoscopic examination is made in the early stages of the disease, slightly raised areas of erythema are visible on the posterior wall and dome. As the lesions progress, the erythematous areas may become confluent. Occasionally the epithelium will thicken through an increase in the number of cells near the area most intensely afflicted, and a small amount of exudate may be present. Actual ulceration is rarely seen.

Histologically, the cell patterns of interstitial cystitis are far from uniform. The epithelium may be metaplastic or atrophic. An edematous stroma with round cell infiltration is commonly found beneath the epithelium. Varying degrees of hypertrophy and fibrosis and even deposition of calcium salts may appear in the smooth muscle. A paucity of capillary vessels is characteristic of the interstitial fibrous tissue. Occasionally the lymphatic channels are more prominent than in the normal bladder. Simmons[1] demonstrated an increased number of mast cells between the muscle fibers in interstitial cystitis. Other investigators have noted that the exudate contains a large number of basophiles, as does the exudate in ulcerative colitis.

From an historical point of view, the information on interstitial cystitis indicates a lack of knowledge concerning its etiology. With each succeeding medical generation, new causative factors are postulated and new forms of therapy proposed. "Foci of infection," bladder neurosis, bladder myositis and allergic sensitivity of the bladder have been implicated, as well as unwashed bodies, irregular menstruation and improper catheterization. Neisserian, acid-fast and spirochetal infections have also been incriminated. Impaired circulation of blood, lymph, and hormones has also been blamed. As yet, the exact nature of interstitial cystitis is unknown.

Equally perplexing is the exceeding difficulty of evaluating the effectiveness of various forms of therapy: the many vagaries of the disease plus the psychoneurotic personality commonly encountered in patients with interstitial cystitis compound a clinician's analytical appraisal.

Forceful distention of the bladder under anesthesia, irrigation of the bladder with increasingly strong solutions of silver nitrate, and, more recently, anti-inflammatory agents such as cortisone and hydrocortisone appear, however, to be helpful. The use of monoxychlorosene (Clorpactin®), which releases free chlorine in solution, has resulted in relief of longer duration.

The experimental work by Warres[2] suggested that any procedure causing reactive hyperemia in the various layers of the bladder will lessen the discomfort of interstitial cystitis.

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The symptoms may warrant urinary diversion in an occasional patient when the disease has been of long standing and fibrosis has made the bladder indistensible.

PROCEDURE

Once a diagnosis of interstitial cystitis has been made, the bladder can be forcefully distended with a 0.25 solution of Clorpactin® while the patient is under general anesthesia. This procedure normally causes an exacerbation of symptoms for 48 hours. When the reaction to the chemical and physical trauma subsides, pain and urinary frequency lessen. Subsequent treatment may be carried out as an office procedure. Under topical anesthesia, a Clorpactin® solution of similar concentration is best instilled to the point of slight discomfort and left in the bladder from one to two minutes on three successive occasions.

COMMENT

A diagnosis of interstitial cystitis was established in 27 patients treated by me in the last 15 years. Twenty-three were women and four were men. The average age was 50 years. Thirteen of these patients had had pelvic operations shortly before the appearance of the symptoms of interstitial cystitis. Thirteen had been concomitantly diagnosed as being psychoneurotic. The average interval between onset of the symptoms and the diagnosis was two years. Fifteen of the 27 patients experienced significant improvement through the use of Clorpactin® as herein described.

Analysis of the clinical material in this series corresponds closely with that reported by other clinicians.

Patients are rarely cured of this disease; in most instances they must return at varying intervals for further treatment.

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REFERENCES

1. Simmons, J. L.: Interstitial cystitis: explanation for the beneficial effects of an antihistamine, J. Urol., 85:149-155, Feb. 1961.

2. Warres, H. L.: The role of hyperemia in the treatment of chronic interstitial cystitis, J. Urol., 86:57-59, 1961.